

Claims

1. Video apparatus comprising
an input switching matrix, to which at least one video
5 input is coupled, the video input comprising a terminal for
a component video signal and a CVBS terminal (Video) or a S-
VHS terminal,
a synchronization signal detector coupled to a
luminance output of the input switching matrix,
10 a color decoder coupled to the luminance output and to
a chrominance output of the input switching matrix,
an output switching matrix coupled to the input
switching matrix and to the color decoder, and
a microcontroller coupled to the input switching matrix
15 and to the synchronization signal detector for controlling
the input switching matrix, **characterized in that** the
detection of the component video signal is made automatic by
means of the microcontroller, which, after selecting a Y
video input, sets the input switching matrix to pass a
20 signal from the terminal for the component video signal of
said video input to the synchronization signal detector,
and, in case this terminal provides a valid luminance
signal, then a component video signal is recognized, which
is switched through then by the output switching matrix,
25 and, in case no valid luminance signal is available at the
component video terminal, then the microcontroller switches
the input switching matrix to the CVBS terminal or a S-VHS
terminal of said video input, respectively, for checking for
a valid synchronization signal by means of the
30 synchronization signal detector.

2. Video apparatus according to Claim 1, **characterized in**
that the video apparatus comprises at least a first and a
second video input, that at least the first video input
35 comprises terminals for a component video signal, for a CVBS
video signal and for a S-VHS video signal, and that after
selecting the first video input, the microcontroller checks

first for a component video signal, then for a S-VHS video signal, and then for a CVBS video signal.

3. Method for automatic detection of a component video
5 signal within a video apparatus having a video input with a terminal for a component video signal, an input switching matrix, a microcontroller, and a synchronization signal detector, the method comprising the subsequent steps of:
- 10 a) after selecting the video input, the microcontroller sets the input switching matrix to pass a Y signal from the terminal for the component video signal to the synchronization signal detector,
 - b) the microcontroller waits for a specified period of time for a signal to settle,
 - 15 c) the microcontroller accesses the synchronization signal detector to get a feedback on the validity and stability of a luminance signal,
 - d) if a valid luminance signal is present, then the component video input is valid and the respective
20 component video signal is switched through then by an output switching matrix,
 - e) in case no valid luminance signal is available at the component video terminal, then the microcontroller switches the input switching matrix to a CVBS terminal or
25 a S-VHS terminal of the video input, to check for a valid synchronization signal by means of the synchronization signal detector.

4. Method according to claim 3, **characterized in that** the
30 video apparatus comprises at least a first and a second video input, that at least the first video input comprises terminals for a component video signal, a CVBS video signal and a S-VHS video signal, and that after selecting the first video input, the microcontroller checks first for a
35 component video signal, then for a S-VHS video signal, and then for a CVBS video signal.